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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,146	02/21/2002	Peter Chan	A-6257	9289

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SCIENTIFIC-ATLANTA, INC.
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EXAMINER	
SRIVASTAVA, VIVEK	

ART UNIT	PAPER NUMBER
2611	3

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/080,146	Applicant(s) CHAN, PETER	
	Examiner Vivek Srivastava	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 16-21* is/are rejected.

7)☒ Claim(s) *15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 7-14, 16, 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Crosby et al 5,933,192).

Regarding claims 1 and 10, Crosby discloses a digital broadcast satellite (DBS) receiver (meeting the set-top box limitation – see col 1 lines 9-11)) which provides significantly quicker channel changes (see col 1 lines 49-50) and thus minimizes channel tuning delay. The system comprises a first decoder 42 and a second decoder 44 (see col 3 lines 52-55) which are in communication with microcontroller 70, microcontroller 70 provides look-ahead tuning logic by predicting the next channel that a user may select (see col 4 lines 30-44 and col 5 lines 13 – 25). It is noted that a user requests or issues a command to view a channel and the microcontroller causes the tuner and decoder modules A to tune to channel 200 (see col 6 lines 1-11) and predicts the next channel and tunes and decodes the next channel per instruction from microcontroller 70 (see col. 6 lines 1-34).

Regarding claim 2, Crosby discloses that the predicted next channel will be an adjacent channel and that the two channels are consecutive in the list of channels being offered to the user (see col 4 lines 20-30). It is noted that the predicted channel is chosen from this list, and that the predicted channel is adjacent to the current channel.

Regarding claim 3, Crosby discloses the claimed "wherein the list of television channels is created in part on a current channel decoded by the first decoder" since an adjacent channel on the list is created or selected based on the current channel being decoded by the first decoder (see col 4 lines 20-30).

Regarding claim 4, Crosby discloses storing records of the user's past channel changes (see col 5 lines 18-25) and thus discloses the claimed "memory stores a historical log of channels recently decoded by first decoder".

Regarding claim 7, Crosby discloses an option of a three tuner system. Crosby discloses when a user selects channel 200 using tuner B, the microcontroller inherently determines that tuning resources A and C are available to tune and decode, and thus utilizes tuners and associated decoders A and C to predict the next channel. Subsequently when the user predicted channel from tuner/decoder C is displayed, the microcontroller inherently determines that tuning resources and associated decoders A and B are available (see col 6 line 57 – col 7 line 14). Thus Crosby discloses the claimed "decoder manager".

Regarding claim 8, Crosby discloses a prediction evaluator to determine if the predicted next channel was correct or wrong (see col 6 lines 50-56). It is noted that the system enables switching to user selected channel even if the prediction was wrong and

thus discloses the claimed "wherein the prediction evaluator determines if said television channel predicted by the said look-ahead tuning logic matches a subsequent subscriber requested television channel".

Considering claim 9, Crosby inherently discloses the claimed look-ahead tuning logic comprises a feed back loop since the are first selected, and that the predicted look-ahead tuning is based on channels previously selected (see col 5 lines 13-25).

Considering claim 11, Crosby discloses determining if the user selected subsequent channel matches or is the predicted television channel (see col 6 lines 50 – 56).

Regarding claim 12, Crosby discloses the claimed most frequently watched television channels (see col 5 lines 30-35).

As to claim 13, Crosby discloses predicting and selecting and adjacent channel (see col 4 lines 20-30). It is noted that adjacent channel 201 is predicted based on the identity of the current channel or channel 200.

Regarding claim 14, Crosby discloses predicting a next channel based on a user's preference list and thus discloses compiling a list of candidate television channels (preference channels) and that the next channel is selected from the list of preference channels (see col 6 lines 35-49).

Regarding claim 16, Crosby discloses an option of a three tuner system. Crosby discloses when a user selects channel 200 using tuner B, the microcontroller inherently determines that tuning resources A and C are available, and thus utilizes tuners A and C to predict the next channel. Subsequently when the user predicted

channel from tuner C is displayed, the microcontroller inherently determines that tuning resources A and B are available (see col 6 line 57 – col 7 line 14). Thus Crosby discloses the claimed "determining the resources available for tuning to said predicted next television channel limitation".

Regarding claim 20, Crosby discloses storing records of the user's past channel changes (see col 5 lines 18-25) and thus discloses the claimed "storing a historical log of television channels requested by the subscriber".

Considering claim 21, Crosby discloses the step of instantaneously presenting the predicted next television channel for viewing by a subscriber (see col 1 line 49 – col 2 line 29).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5, 6, 17, 18 and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Crosby et al (5,933,192) in view of Reitmeier (6,118,498).

Considering claim 5, Crosby fails to disclose the claimed wherein the list of television channels is created based in part upon a historical log of channels.

Reitmeier teaches providing a scan list of predicted channels based on past user selection of channels or a historical log of channels (see col 7 lines 1-45). It would have been obvious modifying Crosby to include a scan list of channels based on a historical log of channels listing a wider range of predicted channels improved the chances that the predicted channel is one that the user is going to select next. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Crosby to include a scan list of channels based on a historical log of channels to improve the chances of predicting a channel a user will select next since the scan list would encompass a wider range or possible predicted channels including channels based on a user's past history.

Regarding claim 6, Crosby discloses a microcontroller 70 which weighs the probable next television channel predicted by the user. It is inherent that the ordering is done in some kind of memory or 'database'. Crosby fails to disclose ordering the television channels to generate a list of television channels.

Reitmeier teaches providing a scan list of predicted channels based on past user selection of channels or a historical log of channels (see col 7 lines 1-45). It would have been obvious modifying Crosby to include a scan list of channels based on a historical log of channels and a weights applied to channels to provide a more accurate and wider range of predicted channels thus improving the chances that the predicted channel is one that the user is going to select next. Therefore, it would have been

obvious to one having ordinary skill in the art at the time the invention was made to modify Crosby to include ordering the television channels to generate a list of television channels based on the application of weights to provide a more accurate and wider range of predicted channels thus enabling greater chances of predicting which channel the user is going to select next.

Regarding claims 17 and 18, Crosby fails to disclose tracking prediction to determine the accuracy of the prediction and using the accuracy to predict subsequent television channels to be requested by the subscriber.

Like Crosby, Reitmeier teaches a system for reducing latency in channel changes by compiling a prediction channel scan list. The scan list is a list of channels which are predicted to be selected by a user. Reitmeier further teaches, that if the channel selected by the user is not the predicted channel, channels listed in the scan list are discarded and modified to reflect the channel selected by the user (see col 9 line 55 – col 10 line 28). It would have been obvious to modify Crosby to include tracking the accuracy of the predicted channel to the channel selected to modify and update the list of channels and the list of preferred channels in Crosby (see col 4 lines 20-30 and col 6 lines 35-48) to ensure the list is up-to-date and to better track and predict channels that would be requested by the user. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Crosby to include the claimed limitation to better track and thus predict channels that would be requested by the user.

Regarding claim 19, Crosby fails to disclose the step of storing the identity of the predicted television channel in memory.

Like Crosby, Reitmeier teaches a system for reducing latency in channel changes by compiling a prediction channel scan list. The scan list is a list of channels which are predicted to be selected by a user. Reitmeier further teaches, providing a wider range of predicted television channels in a scan list which is stored in memory unit 76 (see col 3 lines 1-9). It would have been obvious modifying Crosby to include a channel scan list listing a wider range of predicted channels and storing the scan list in memory would have enabled quicker wider range of predicted channels thus improving the chances that the predicted channel is one that the user is going to select next. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Crosby to include storing a predicted channel(s) in memory, i.e. a scan list, to improve the chances of predicting a channel a user will select next.

Allowable Subject Matter

Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

I. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Grabb et al (6,538,704) – Tuner to improve channel acquisition

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry)

Or:

(703) 308- 5399 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivek Srivastava whose telephone number is (703) 305

- 4038. The examiner can normally be reached on Monday - Thursday from 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant, can be reached at (703) 305 - 4755.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 305 - 3900.

9/18/04

VS

VIVEK SRIVASTAVA
PRIMARY EXAMINER